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STUDENTS AND DRUG USE: A STUDY OF
PERSONALITY CHARACTERISTICS AND EXTENT OF
DRUG USING BEHAVIOR

BY



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A THESIS

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The undersigned hereby certify that they have read and recommended to the Faculty Of Graduate Studies for acceptance, a thesis entitled "Students And Drug Use: A Study Of Personality Characteristics And Extent Of Drug Using Behavior" submitted by D. Elaine Riggs in partial fulfillment of the requirements for the degree of Master of Education.

ABSTRACT

This research was designed to examine the prospective relationship between selected personality and attitudinal variables, and comparative extent of drug-using behavior. More specifically, it was designed to determine the existence of differences, on selected personality and attitudinal variables, among groups of adolescents, categorized according to the extent of drug usage characteristic of their respective memberships. The sample population for this study consisted of 60 subjects, selected from the grade twelve student body of a large Edmonton Composite High School. The subjects were categorized into three groups of 20 (10 male and 10 female) individuals, according to the respective extent of drug usage characterizing each, and were so classified as: habitual drug users, occasional drug users and non drug users. Individuals inclusive of the three groups, were matched carefully, to control for age, sex, and educational level.

The Edwards Personal Preference Schedule, which provides measures on 15 personality variables, was used to establish indices on a number of relevant personality traits. Further, A Survey Of The Opinions Of Youth, developed by the writer for purposes of examining the direction and intensity of attitude toward drug usage, was employed, with the intention of securing comparable indices on a number of limited, however significant, correlates of the attitudinal dimension of personality. Both assessment procedures were administered to the total number of 60 students involved.

It was hypothesized that: no significant differences would be found to exist among groups of habitual drug users, occasional drug users, and non drug users, or between males and females within each group; nor would there be a significant interaction found to exist between extent of drug usage, and sex, respective of each variable assessed. A 2x3 analysis of variance was calculated for, and thereby served to test, each of the hypotheses. With one exception, all of the major hypotheses, (regarding nonsignificant differences extant among the groups involved, respective of the 15 personality variables assessed) were confirmed. Significant differences between males and females were found to exist within certain of the three groups considered, respective of a limited few of the total number of variables assessed, and in each case, the Scheffé's "A posteriori" contrasts were applied to determine the direction of significant differences thus observed. Of the total complement of variables of personality assessed, the singular variable found to exhibit differences among the groups studied, and hence, to refute the major hypothesis, was that of attitude toward drug usage.

A global, and rather generalized implication to be drawn from results of the present study, is that of the need for further research directed toward more precise, and comparatively more all-encompassing findings, with regard to evaluation of constructs of personality relevant to the phenomenon of drug usage. In addition, results of this study proffered, more specifically, implications for further exploration of the attitudinal dimension, the nature and scope of which is presumed to have

direct and sound application to the principles underlying development of the necessary, realistic, and effective programs and procedures respective of therapeutic, educational, and preventative endeavors relative to this pervasive social issue.

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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

INTRODUCTION

More than a decade ago, Huxley (1954) noted that the desire to "transcend" oneself seems to have existed with man from earliest times. DeRopp (1967), a contemporary, following this thesis, demonstrated repeatedly that the effort to escape ones own "sweating self" and to experience even temporary states of euphoria or relief, regardless of the cost, had followed man throughout the course of history. The current "drug problem" within our North American youth society has since been debated, discussed, described, and defined by many theoreticians, scientists, politicians, and a confused public; most of whom relate its existence to the various states of alienation, rebellion, and neurotic contempt for traditional society presently characteristic of individual or collective youth.

If the "problem" is to be viewed in realistic perspective, however, any attempt to reveal or delimit its nature by focusing upon comparative individual/group behavior correlates, must be tempered with the knowledge that contemporary society, as an entity, has become accustomed to the chemical relief of every discomfort. All our people are reminded, states Unwin (1969), "...continuously and unremittingly, of the rich variety of chemical comforts freely

available without medical prescription -- a pill for every problem, a scent for every smell, a liquid for every liability." Encompassing what may therefore be considered the dual nature (i.e. personal-social) of this concern, Holmes (1964) aptly summarizes that "...never has there been a time or place in which man has failed to find himself assailed by conflict or anxiety" -- and never has he been without chemical agents whose promise of alleviation from all discomfort causes him to turn to them, not only to seek escape from dissatisfaction, but also to search endlessly for a perfect euphoriant.

From the massive field of drug experiences, this study limits itself to those drugs which belong to the category known as hallucinogens or psychedelics (mind-manifesting), and to an examination of certain personality variables, both of those young people who employ these chemical agents, and of some who do not.

THE PROBLEM

Within the past decade, a small, typically middle-class segment of North American youth began taking mind-altering drugs. Sensationalization by the communications media, proselytization by renowned and powerful experimenters such as Leary, alarmist reaction by the adult populace, and exploitation by those catering to the affluent youth market, succeeded in exploding this trend to a degree sufficient that public recognition now relates drug use to the entire youth culture. However unwarranted this public opinion, the percentage of adolescents

indulging in the use of psychedelic substances has increased dramatically since the inception of the drug phenomenon (Smart, 1969) and proportionately, a similarly dramatic decrease in the age level of those experimenting is presently being evidenced (Unwin, 1969).

Apart from limited research designed to explore the use of psychedelic drugs in the treatment of severely disturbed individuals, and numerous surveys conducted among Canadian and American student populations to determine the extent of usage, and perhaps to draw inferences regarding causes or reasons for usage, little scientific evaluation of this issue has been completed to date. In the absence of definitive, scientifically-conducted, or conclusive research; conflicting, often contradictory hypotheses, inferences, claims, and conclusions are to be found in the literature, particularly as it relates to theoretical presuppositions underlying the phenomenon of drug use among adolescents.

The writings of many travellers into drug land seem to speak consistently of a search for new levels of perception and understanding, and of answers to the questions of what it is that makes for individual and social fulfillment. These criteria as they relate to drug usage, exemplify an "escape to --" category of reasons, causes, motives, etcetera as distinct from, but complementary to an "escape from---" category--and both function as equal parts of the oft-cited, all encompassing rationalization for drug usage--escape. Cameron (1969) summarizes the thinking of many of the exponents of

this "dual escape" rationale with the proposition that, among many, the two most significant factors relating to experimentation with psychedelic drugs include: (1) escape "...from pain, anxiety, fatigue, aggressive feelings, or even from excessive passivity or boredom. There seems to be a desire to break contact with ones external and usual internal environment." and (2) thrill-seeking -- or the pursuit of, and escape into "new or novel intellectual experiences" -- carrying with it primarily emotional or sensual connotations, the seeking of new or intensified sensory impressions, or heightened or altered emotional feelings.

Basic to the concerns of this study are the assumptions shared by those proponents of the hypothesis that the primary characteristics which distinguish among specific types of adolescent drug users and differentiate these users from their non drug-using peers are those relative to the fulfillment of specific individual and/or social needs. Keeler (1968), for example, explains as motivating factors among drug users: (1) the need-to conform to peer group values, and (2) the need-to satisfy curiosity. Bowers (1967), Freedman (1964) and Levy (1968), in their respective descriptions of hallucinogenic drug use among young people concur in the finding that youth very often "feel the need to fuse or merge with others." King (1969) suggests that our social order predisposes the adolescent to adopt the chemical escape route in devoiding itself of such critical aspects of the developmental process as: meaningful adult roles, clearly defined transitions points to signify change in status,

stability and consensus in its value system, and order and structure as it relates to the changing and increasing multiplicity of choices to be made and goals to be achieved--and thereby in fact failing to provide him with the appropriate means for fulfillment of his basic needs.

L.G. Thomas (1967) noted, in a study of the characteristics of glue-sniffers, that two basic human drives were operant: (1) the need to belong to a group, family unit, or segment of our social order, and (2) the need for power -- to be active rather than passive in relationships with others. When these drives are frustrated, he suggests, the individual responds ultimately with self-defeating acts such as drug usage. Research conducted among a student population in British Columbia (1970) concluded that, among four major factors relating to drug use, paramount were: (1) the individual's relationship with parents (which in all cases proved less than adequate and was presumed either to frustrate or to fail in fulfilling among others, the needs for affection and achievement) and (2) the individual's association with drug users (again, suggestive of attempts to fulfill needs, in this case, the need for affiliation and the need to establish an identity). A previous, similar survey of a Toronto student population (1969) revealed that those factors significantly related to drug use include: (1) need for achievement, (2) need for affiliation (peer group), and (3) need for affection (particularly as it relates to family discord). Ausubel (1966) propounds wisely that no one drive, need, desire, or personal or social factor can be

considered either the singular cause for usage or the sole characteristic distinctive of the user; that a multiple causative -- motivational approach is required, recognizing the complex combination of both external and internal forces which act upon the individual.

Here, an apparent dual-natured need evolves, parallelling the afore-mentioned "escape" rationale, and similarly characterizing, in an all-embracing fashion, those who constantly seek, through the use of psychedelic substances, new "experiences" and "insights". By nature, it includes therefore both: a need to "turn-off" -- to drab, frightening, disgusting, unfulfilling, overwhelming reality, and a corollary need -- to "turn-on" to the search for salvation, omnipotence, and transcendence from all physical and social limits.

It is the contention of this writer that the majority of adolescent drug users are initially, perhaps totally and continually, motivated as individuals by the simple enjoyment of a pleasure whose hazards they consider insignificant. These individuals and/or groups are comprised of those identified as the occasional users, the "week-enders", who participate in drug-using activity consistently, but infrequently. Other motives may preempt this in certain cases, may operate conjointly with it in others, or may eventuate from it in yet others, particularly those involving continual or increased usage. Otherwise known as drug-dependent, or habitual or regular users, individuals and/or groups within this category receive focal attention within the present study, as it directs itself to an

examination of the differential variables presumably existent within, and characteristic of its populace. The popular notion that differences exist within the group characterized as regular or habitual drug users with respect to such personality constructs as needs, and the consequent behavioral manifestations of same, finds little supportive evidence in research accrued to date. Needs for affection, affiliation, independence, and experiencing of the novel, insightful or mystical; for example, and personality-behavioral manifestations concurrent or consequent, such as the search for identity, the desire to conform to peer group values, the tendency to rebel against or attempt to escape from intolerable circumstances, and so on, may indeed characterize the drug-using populace of adolescents; however, any or all of these factors may similarly characterize all adolescents, whatever their quest:

HYPOTHESIS

Emerging from the foregoing discussion then, is the underlying hypothesis that, with reference to certain specified personality variables, no difference exists between groups of drug-using and non drug-using youth.

OVERVIEW OF THE PRESENT STUDY

Chapter two of the present study attempts, in the absence of theory specific to this issue, to review and integrate those

hypothetical considerations relevant to defining and evaluating the personality characteristics distinctive of the habitual or regular drug-using sector of the youth population. Specifically, it directs itself to a presentation of the assumptions proffered by J.R. Unwin in this regard, as they are evaluated and elaborated by relevant additional contemporary research efforts and expert speculative opinion. Chapter Three outlines experimental design and methodology specific to this study, the findings of which are detailed in the fourth chapter. The final chapter attempts to integrate successfully, findings from this study as they bear relevance to the composite research effort, and to extrapolate appropriately, implications which may assume functional significance to educative, preventative, and therapeutic efforts presently extended by counselling, school psychological, and the total educational service.

DESIGN AND PROCEDURE

A total sample population of 60 grade twelve students, nineteen years of age were selected from an Edmonton Public Composite High School, and were subdivided equally into three matched groups categorized further according to the extent of drug usage characteristic of their respective memberships. The groups are examined on fifteen dimensions of personality as measured by the Edwards Personal Preference Schedule, and attitudinal dimensions revealed in responses to A Survey of Opinions of Youth. Group comparisons and differences

will be determined by analysis of variance performed on the data.

The major purpose of the study relates therefore, to determining if groups of students selected on the basis of respective extent of drug-using behavior can be distinguished from each other in terms of statistically significant differences in scores on selected personality variables.

CHAPTER II

REVIEW OF RELATED RESEARCH

INTRODUCTION

The present study is concerned with the relationship of selected personality variables to types of drug-using behavior among adolescent high school students. Reference will be made in this chapter to a limited few of the many and varied speculative, theoretical, and research-based positions of American authorities in this field; however, comparative review of Canadian literature suggests that criteria relevant to studies of personality, such as level of anxiety, motivation, need structure, family background, achievement-orientation, degree of socialization, and so on, as applied to groups of American student drug users may vary significantly when similarly applied to comparable populations of their Canadian contemporaries. For this reason, and because research to date has universally failed to establish substantive empirical and/or clinical evidence to support an exacting position with respect to the factors relating to drug usage, this study will review and incorporate, with few exceptions, the writings of, and research conducted by Canadian authorities among Canadian student populations. More specifically, it will consider paramount, the research and writings of J.R. Unwin, a leading Canadian and International authority in this area.

To date, no theory specific to the issue of illicit drug use among youth has been advanced. In compensatory fashion, therefore, the findings of multivariate speculative, and limited few research-oriented studies (including selective inferences from the writer's clinical experience in this area) will be reviewed and evaluated by application to hypotheses extrapolated from the work of Unwin which bear relevance to the present concern. It is further intended that the resulting complement of substantive proposals will serve to provide the necessary, plausible, and sufficient theoretical frame of reference to which inclusive data may confidently be related.

A HYPOTHETICAL FRAMEWORK

Unwin (1968) establishes a hypothetical frame of reference for purposes of meaningful and exacting discussion of the issue of drug use among youth, by postulating and elaborating upon the fundamental premise that a complex interplay of both individual-psychological, and sociological forces determines, affects, and is basic to an understanding of this phenomenon. Also basic to such understanding is knowledge relating to adolescence as a particular and peculiar stage of development. The writer has chosen to avoid presentation of definitive theory and/or detail specific to a comprehensive exploration of the behavioral variables and related other significant concomitants of adolescence per se. Suffice to

indicate at this time that adolescence is universally recognized as the greatest time of change physically, emotionally, and socially of any other point in the life cycle (King, 1969). Valid and sufficient additional detail will be found included where applicable and relevant to respective discussions to follow.

THE OCCASIONAL USER - PERSONALITY CHARACTERISTICS

Individual or personality variables relate, in the main, to motivations behind the use of drugs, which, Unwin contends, are highly complex and highly individual, and include such factors as: curiosity, defiance of authority, imitation, peer group pressures, escape from frustration and self-indulgence, a search for transcendental mystical experiences, and so on. The inference regarding the complex and multivariate nature of motivation as it relates to drug use in general (and operant, in the main, within the population of "occasional" users) receives support from most authors having similarly evaluated this area (Holmes, 1969, Luria, 1958, DeRopp, 1957). Motivational variables are further, very subtle, complex, and full of nuance, and explanations of their operational influences, relationships, or effects vary considerably between different drug-using populations and within each particular population, as well as from drug to drug. Results of inquiries made by the LeDain Commission (1970), for example, suggest specific motivations relate to usage of specific drugs; in

the case of cannabis, a major factor appears to be the simple pleasure of experience plus its tendency to facilitate socializing or communal activity; LSD, considered a much more profound experience, is taken largely for purposes of seeking self-knowledge and self-integration. The essence of Unwin's position in this regard is suggestive of the failure or inability of research thus far to isolate definitive factors relating exclusively to the characteristics of drug-using individuals or populations. Current research is further devoid of evidence to support the proposal, or popular notion, that all, or at least the majority of drug users are "different" from, or distinguishable within the overall population of youth. Unwin concludes profoundly in this regard that the personality characteristics of the majority of casual users of drugs are not necessarily representative of instability, nor do any of these occasional users have "deviate" features which serve to distinguish them from the non-using population. Research relevant to the issue is conflicting and thereby remains indecisive with respect to establishing conclusive evidence about predisposing or precipitating characteristics of occasional or casual users. Lewis (1968) concluded from a review of the literature regarding cannabis that "a respectable body of opinion is to the effect that -- the majority of moderate users are within the normal range of personality." Schwarz (1969), on the other hand, concluded from a similar evaluative survey of the research, that "regular users of

both marijuana and hashish so far studied tend to show basic defects of personality." However, lacking in evidence, the majority of authoritative opinion supports the assumption that: the occasional use of drugs is neither a symptom nor a manifestation of a pathological state within the individual; nor is casual usage likely, in the majority of cases, to precipitate such a condition where no predisposition exists (Eddy, 1965; Freedman, 1967).

THE HABITUAL USER - PERSONALITY CHARACTERISTICS

It is reasonable to assume therefore, that no outstanding personality or behavioral characteristics exemplify the occasional user, and thereby distinguish him from the non-using members of the youth populace. By contrast, the regular or habitual user, suggests Unwin, exhibits characteristics which differentiate him from the total population of drug users and from non drug-using youth. To preface the following outline of Unwin's hypotheses regarding differential characteristics of the habitual user, and with the intention of precluding certain possibly contentious issues which may arise heretofore, the writer wishes to emphasize the following observation, particularly as it is suggested by Unwin to clarify and qualify his proposals, and since it bears relevance to the majority of research in this area, inclusive of the present study: "A primary difficulty is of course, the inability to separate out drug effects

from pre-existing personality vulnerabilities." (Unwin 1969)

With reference to the individual personality characteristics of the habitual user, Unwin suggests that the regular or habitual use of drugs is usually symptomatic of an underlying personality disturbance rather than the cause of it. Gottlieb (1969) suggests, in support of this premise, that we may assume a dependent type of drug usage to be almost universally symptomatic of serious underlying personality and/or social problems. He indicates further, and in relation to the use of psychedelics, that we may characterize the habitual or drug-dependent user as he is motivated, either to:

1. cope with feelings
- or
2. alter consciousness.

He concludes that drugs have a particular attraction for adolescents and young adults who are socially maladjusted, emotionally inhibited, and who constantly seek new "experiences" and "insights".

James Paulsen (1969) supports the contention that although a great number of young people seek, or are motivated to take drugs for a variety of reasons "--it is perfectly understandable that troubled and emotionally unstable individuals are frequently those most attracted to psychedelic drugs." He implies further that the disturbed individual (by contrast with the non-disturbed, who is otherwise motivated) will be more likely to continue or repeat usage, since an essential

part of his motivation is a wish that his problems will diminish or disappear.

Cameron (1965) adds final support to Unwin's basic assumption in a discussion of the addictive personality wherein he contends, from his research and therapeutic experience, that drug dependence, whatever the drug involved, is almost always a reflection of some underlying mental and/or social disorder or pressure. With reference further to a discussion of the use of hallucinogenic substances by youth, he distinguishes between:

1. the majority of users, who manifest innumerable characteristics and motivations related to usage.
2. the comparatively few users who manifest disturbances of personality which precede and predispose them to abuse, rather than use drugs, in an effort to obtain "relief" from whatever "intolerable" psychological or social situation precipitated and/or provokes the disturbance.

Cameron concludes in anticipatory fashion relative to Unwin's additional, and more specific hypotheses regarding characterization of the habitual user, that the drug-dependent personality is typically:

1. lacking in frustration tolerance
2. dependent and immature
3. hedonistic

4 unreliable.

The above evaluations complement and add credence to Unwin's efforts and conclusions presently reviewed, as he advances an integrative, comprehensive examination and detailed structuring of the personality variables specific to the repeated or habitual use of drugs by youth. The habitual or chronic user, he contends, regularly exhibits characteristics of: apathy, lack of ambition and drive, inability to persist at tasks, poor frustration tolerance, difficulty in concentrating, and diminished verbal facility. All of these characteristics represent various manifestations of the underlying and pervasive state of chronic depression inevitably suffered by the habitual user. All are akin as well to the amotivational syndrome or are symptomatic of the 'alienation syndrome' described by Halleck (1967), and further typify some psychological arrest in growth and maturity. In addition to severe or chronic depression, the habitual user further suffers emotional deprivation of varying degrees, evidences identity problems, and is likely member to a family which is fraught with discord and incapable of sustaining satisfactory interrelationships. Finally, hypothesizes Unwin (1968), all appear committed to a philosophy which implies that needs should have immediate gratification, and that the way to achieve need-satisfaction or to cope with the otherwise consequent frustration or uncertainty is to "freak-out" - to escape into the dream world of intoxication. The regular or habitual

user may exhibit in addition, any or all of the afore-mentioned personality-motivational variables operant within or relevant to the casual or occasional user; however, Unwin postulates that these certain, identifiable factors or traits (above outlined) are representative of characteristics typical and distinctive of, or at least evident within the personality of the habitual user.

Extrapolated from Unwin's descriptive presentations, the following schematization encapsulates his basic hypotheses or theoretical formulations regarding the significant, operant factors or variables apparent within the population of the habitual drug-using youth.

FACTORS SUGGESTIVE OF
EVIDENT PERSONALITY
CONSTRUCTS

Emotional Deprivation
Problems of Identity
Poor Family Background
Chronic Depression

FACTORS SUGGESTIVE OF
APPARENT BEHAVIORAL
CONCOMITANTS

Apathy
Lack of ambition and drive.
Inability to persist at tasks.
Poor frustration tolerance.
Difficulties in concentration.
Diminished verbal facility.
Philosophy of "immediacy".

RELATIONSHIP OF INDIVIDUAL PERSONALITY
VARIABLES TO EXTENT OF DRUG USING BEHAVIOR -

THE EVIDENCE

Research directed toward an objective examination and definitive description of the relevant psychological factors or correlates specific to the drug-using personality or population, is generally scant, and specifically, inconclusive. Perhaps the first significant study relative to this concern was that conducted in 1944 by the New York Mayor's Committee. It employed ten psychometric measures, four of which were concerned objectively, but indirectly with the personality of the subjects involved. The study is vulnerable to, and continues to receive criticism, particularly with regard to the types of populations involved, and more specifically, the questionable validity of the tests chosen for assessments of personality; however, its conclusion succeeded in posing results which were entirely negative -- no differences among the control group and the population of users were demonstrated at a significant level.

Much more recently, representatives from many disciplines have approached the problem in respective attempts, among others, to:

1. establish the extent of usage among populations of youth (Blum, 1967, Unwin, 1969, Whitehead, 1969).
2. classify the various types of users (Bloomquist, 1968 and Cameron, 1969).
3. describe or delimit the characteristics typical of the drug-taking personality (Goodman and Gilman, 1955, Luria, 1969, and Blum, 1969).

4. examine or explain the reasons for, or motivation behind drug-using behavior (Strauss and Bacon, 1953, Unwin, 1968, Keeler, 1968, and the Toronto Study, 1969).

5. determine or assess the immediate as well as the long term effects of usage upon the individual (Smart and Bateman, 1967, Campbell, 1969, and Dewhurst, 1970). These represent but few of the many, varied, and diffuse attempts to approximate the nature and significance of the concern as a whole. Specific to the issue of establishing individual-personality criteria relevant to habitual drug-using behavior, comparable efforts have been extended in a similarly uncoordinated attempt, such that this particular concern suffers the task of decoding the interpretations of legal, medical, psychiatric, psychological, sociological, religious, educational, pharmacological, parental, and lay authorities before it may consider its properties in significant perspective.

Intentionally, by default, or by way of reaction to a panic-ridden society, a majority of these apparent "research" studies, have provided little else than a profusion of complex, descriptive, and philosophic speculations or inferences. Often relevant, and occasionally profound, in total they lack the necessary, concrete, and sufficient evidence with which to establish and support valid claims.

Those deserving by their nature as well-designed, meaningful, purposeful, and relevant approaches to the current issue, will receive

future reference. Such are the works of Cameron, Keeler, Bowers, Freedman, Levy, and King, among others, including those studies conducted among a number of Canadian student populations; all of which have been referenced in Chapter One, and receive mention at this time as they relate specifically to the hypotheses proffered by Unwin.

Additional research supportive of certain of these hypotheses is found within studies conducted by Whitehead among groups of Halifax students. A behavioral concomitant related to, and influenced by certain "conditions" of personality such as: apathy, lack of ambition and drive, inability to persist at tasks, difficulties in concentration, and diminished verbal facility, is that of level of achievement. These "conditions" of personality are exemplary of the regular or habitual drug user, according to Unwin; and Whitehead (1969) in a study of grades 7-12 students demonstrated further, a significant relationship between extent of drug usage and academic achievement level. His study revealed conclusively, that as overall academic average increases, drug usage decreases. Further, he found that the incidence of use among those with averages below 40% is radically higher than that among others. The inverse relationship thus existing between level of achievement and extent of usage lends further support to the suspected and observable influence of personality "conditions" or variables such as apathy, lack of ambition, and so on, as they operate to effect changes in both indices of behavior as expected, and in fact as measured accurately with respect to achievement level, and with some degree of

possible doubt regarding amount or extent of usage reported.

A second study by Whitehead (1969) conclusively supports Unwin's thesis that the chronic user suffers emotional deprivation and likely, poor family relationships, historically and/or currently. His study, which pertained to the relationship between broken homes and ten types of drug use among Halifax students, revealed the existence of a significant positive relationship between adolescents from broken homes and various types of chronic drug use, compared with adolescents from stable home environments. That such family orientation is generally extant within the population of chronic users, and is further, generally favorable to experimentation with narcotics and other drugs, is substantiated by Chein et al (1964) who present evidence: "...suggesting that users had experienced some stress in their personal lives or family environment. There were indications that chronic users came from families that were less cohesive than those of their non-using peers -- users were thrust prematurely into adult roles. Many experienced some radical change in their lives during the critical year -- shift in family occupation, move to another neighbourhood, and the like --."

Finally, research conducted among a student population in British Columbia (1970), as outlined in Chapter One, is further supportive in its finding that foremost among the four factors associated with chronic drug use is that of the individual's relationship with parents, which in all cases was inadequate and frustrating.

The above studies further suggest, by implication, the corrolary effect of emotional deprivation (inherent within, or necessarily accompanying and resulting from, unfortunate, negative family relationships) upon motivation for extensive use of drugs. The assumption that chronic users are currently experiencing and/or have a history of emotional deprivation is supported by the findings submitted by the LeDain Commission Interim Report (1970). Following extensive review and evaluation of the research, and from additional, relevant and authoritative inquiry, the Commission demonstrated the profound effect upon chronic drug-using behavior of disruptive or deficient childhood experiences. Such early experiences eventuated deficient ego formation, poor personality adjustment, and a concomitant lack of ability to cope with the complexities of present day society -- a complement of personality variables or correlates found to relate significantly to chronic drug use.

Objective studies of the personality characteristics relative to drug usage (both extensive and occasional) have successfully evaded, or been excluded from, research attempts thus far directed toward a comprehensive evaluation of the phenomenon. With the exception of the measurements used in the New York Mayor's Study (1944), the only additional objective inventory of the personality characteristics of an hallucinogen user has been that conducted by Keeler (1965) who found significant results with regard to users of psilocybin, as measured by the MMPI on the Hs (Hypochondriasis) and Hy (Hysteria)

scales. The number of subjects was extremely small (12), and unfortunately, the information gained does not again yield insight into the user's personality, but rather only measures changes in the individual's scores before and during use of the drug. Scientific psychological measures of the effects of drugs on such factors of performance as attentiveness and muscular coordination (Weil, 1968) have been reported in quantity; however, presumably lacking relevance to an evaluation of characteristics of personality as presently intended, they have been excluded from reviews of the literature. The objective studies of, for example, behavioral indices (such as: degree of socialization, expression of affluence, levels of achievement, and extent of deviance) related to drug usage have been recorded since they purport, with validity in most cases, to reveal, however indirectly, aspects pertinent to the respective personality variables. Subjective detail gleaned from well-documented surveys, authoritative opinion, and extensive clinical and therapeutic experience, necessarily included to in fact establish, and additionally support the hypothetical framework required, may well prove to continue as exclusive sources of reliable and valid information pertaining to this issue.

RELATIONSHIP OF SOCIETAL-SOCIAL VARIABLES TO EXTENT OF DRUG USING BEHAVIOR

However desirable, it is impossible to separate and discuss

in isolative fashion, the individual variables from those sociological, with regard to their respective influences upon drug-using behavior. Unwin's contention, for example, that regular or habitual users subscribe to a philosophy of "immediacy" and, when frustrated, resort to "escapist" - type behavior, receives support from studies designed to examine both the personal and social variables necessarily involved. King (1968) suggests that characteristically, youthful drug users direct their attention primarily toward their own feelings, reactions, and activity such that concern for others is withdrawn. The corollary desire for immediate gratification, he further submits, is characteristic not only of such individuals, but of contemporary affluent society as a whole. Borrowing from John Murray (1964), King refers to this condition as representative of narcissistic entitlement -- a presupposition that things are owed a person without his doing anything to earn them. The diffuse limits and overindulgences apparent in child rearing, as well as the lack of clearly defined adult roles and responsibilities contribute to this sense of narcissistic entitlement, already characteristic of adolescence, and further enhanced by the sense of participation and involvement that comes from modern communication. Narcissism, he concludes, may be further apparent in drug using behavior when it takes the form of withdrawal or regression to the real or fantasied gratification of earlier stages of development, including the belief in magical solutions to problems -- the promise of drugs.

The sense of "immediacy" and narcissistic entitlement exemplifying regular drug users relates further to problems of identity suggested by Unwin, in that such characteristics accrue from lack of belief in the future or inability to visualize a future identity for themselves, as well as from rejection of the past which is considered hypocritical and nonmeaningful to life.

A hedonistic life style precipitates with happiness and pleasure being taken as self-evident goals of life, and emphasis on present experience providing the reaction against constraints on personality imposed by structure or conformity. Accompanying this reaction is an increasing use of drugs, as attempts are directed toward a search for spontaneity, variety, and unstructured expression in personality and experience -- "to possess experience rather than be possessed by it" (DeMott, 1969). In his search for an identity or a real self for which the user chooses to find neither a foundation in the irrelevant past nor a relationship to the uncertain future, the drug becomes a means for immediate authenticity - a way of dissolving the mask, escaping pretense, and stereotyped reactions and attitudes -- an attempt to find liberation from psychological burdens (LeDain Commission, 1970).

Unwin hypothesizes further, with respect to consideration of sociological factors relevant to drug usage that such social conditions as: the increasing number of young people in the total

population and the prolongation of adolescence, complement the factors influencing individual and group decisions in this regard. In discussion of the factors relevant to group drug-using behavior, he agrees with the suggestions of: Keeler (1968) who stresses the influence of curiosity and the need to conform; and Cohen (1955) who notes that young people with maturational difficulties tend to group themselves around certain causes or unconventional activities. This subculture thus owes its existence to the fact that it provides a solution to certain problems of adjustment shared among a community of individuals. Applied to individual or group (subcultural) decisions, the social trend prolonging adolescence, forces youth to contain its urges, idealism, frustrations, and desires to take part in the responsibilities of society. Complicated by the confusion in adult society produced by rapidly changing and unassimilated value systems, and by the present emphasis on immediate gratification, this trend further reinforces the adolescent's desire to live in the present and to seek the thrills or escape promised by indulgence in drugs.

Erickson (1968) corroborates the existence and influential effect of such societal factors, as they relate to efforts by the adolescent to establish himself, both as separate from (intimate groups such as the family), and as a part of, the network of social roles that refer to his place in society. The manner in which this sense of identity is achieved depends to a significant extent on the social

context, and on the events occurring and forces operating within the social cycle. Identity crises result from states of complexity and instability arising during conditions of rapid social change, wherein, according to Erickson, the individual, unable to cope with the multiplicity of choices involved, is faced with an insurmountable situation. He, and his similarly confused colleagues, may establish individual and/or group identity by withdrawal into a drug-using subculture.

Our contemporary society bombards us continually with too many and varied stimuli, suggests the LeDain Commission (1970) in further support of the above contention. Such overstimulation and exposure to stress and complexity, which require the individual to perform too many and too diverse problems, which surpass his ability to cope, result in frantic escape efforts.

Drugs provide the measure whereby an individual may opt out for the inner world of personal experience, emotional awareness, and a restructured value system. Applied to the collective escape effort, drugs provide the group with the means of rejecting and denying the need for stress, complexity, and reliance on tradition.

Finally, Suchman (1968) observes: an apparent change of values and the development of new behavior patterns which, for the most part, are contrary to those of the established order, which

characterize a new outlook on life by youth of today -- one which he refers to as the "hang-loose" ethic. This ethic repudiates or at least questions seriously, such cornerstones of conventional society as christianity, marriage, accumulation of wealth, schools, government rule, in sum -- the "establishment". He further determined by a questionnaire approach, that the more a student's self image tended to be rebellious, cynical, anti-establishment, "hippie" and apathetic, the more likely was that student to use drugs.

SUMMARY

There are no identifiable or characteristic individual-personal or social factors accountable for drug usage. The majority of the many authorities relating to this topic agree, that from the total population of adolescent drug users, those who regularly or habitually use these substances manifest underlying disorders of personality while those who dabble, or use drugs occasionally, are reasonably-well-adjusted individuals who merely wish to try it for themselves.

"Human behavior in general, is thought of as a consequence of needs that are either inherited or learned. There is some tendency to think of behavior such as drug use as a consequence of pathological need patterns. However, we feel it would be a serious error -- to think of use as symbolic of or manifesting a pathological psychological or even sociological state. Simple pleasure, similar to

that claimed for the moderate use of alcohol, or food, or sex, is frequently offered as the general explanation for most current drug use. It is no doubt true that for some, the use of drugs is a reflection of personal and social problems. But the desire for certain kinds of psychological gratification or release is not peculiar to the drug user or to our generations. It is an old and universal theme of human history: Man has always sought gratification of the kind offered by the psychotropic drugs." (LeDain Commission, 1970).

HYPOTHESES TO BE TESTED

The previous consideration of diverse hypothetical concerns and claims, lacking substantive and exacting research, and devoid completely of theoretical structure, suggests the writer use the null hypothesis in this study. Groups of students selected on the basis of respective extent of drug using behavior, age, grade, and sex, will not be significantly different on selected personality variables.

CHAPTER III

EXPERIMENTAL DESIGN AND PROCEDURE

THE SUBJECTS

The subjects of this study were drawn from grade twelve students attending Victoria Composite High School, Edmonton. All of the 60 participants were nineteen years of age and were evenly distributed into three groups of 20 (10 female and 10 male) members each. Respective members of the three groups were matched for age, sex, and educational level. The groups were categorized according to the extent of drug usage characteristic of each of their memberships, as follows:

Group I. Habitual or Regular Drug Users

This group consisted of students who engaged in drug-using behavior at least once per week and had so done for a period of not less than a year. The sample was chosen from a total of 48 clients within the category of regular drug-using grade twelve students, nineteen years of age, for whom the writer had proffered counseling-psychological service. The 10 female and 10 male subjects chosen were randomly selected from the 48 possible, and extent of drug usage characteristic of this total sample population of 20 was further substantiated by responses to select items on the Survey Of Opinions Of Youth questionnaire which was administered as part of this study.

Group II. Occasional or Casual Drug Users

This group consisted of students who engaged in drug-using behavior intermittently (that is, consistently but infrequently) and had so done throughout the previous year. The 10 female and 10 male subjects were chosen randomly from a total of 50 students, selected by members of the counseling staff from their clientele of grade twelve students, nineteen years of age, all of whom, during the course of incidental counseling contact (related either to academic programming or exploration of vocational plans) had admitted to "experimentation" with, or casual use of drugs. The extent of drug usage so exhibited was substantiated additionally by responses to select items on the Survey Of Opinions Of Youth questionnaire administered to the sample population of the 20 students selected.

Group III. Non Drug Users

This group consisted of students who were not, nor had been engaged in drug-using behavior. The 10 female and 10 male subjects were chosen randomly from a total of 50 grade twelve students, nineteen years of age, selected by teachers and further judged by members of the counseling staff, to be non drug-using candidates. Without exception, the sample population of 20 students chosen to participate, from the total group considered, further identified themselves to be non-users by responses to select items on the Survey Of Opinions Of Youth questionnaire.

THE RESEARCH INSTRUMENTS

The Edwards Personal Preference Schedule

The Edwards Personal Preference Schedule (EPPS) was first published in 1954 and the manual was revised and updated in 1959. The function of the test according to Edwards, was stated as follows:

The (EPPS) was designed primarily as an instrument for research and counseling purposes, to provide quick and convenient measures of a number of relatively independent normal personality variables. The statements in the EPPS and the variables that these statements purport to measure have their origin in a list of manifest needs presented by H.A. Murray and others (Edwards, 1959).

The EPPS provides measures on 15 personality variables as follows: Achievement (ach), Deference (def), Order (ord), Exhibition (exh), Autonomy (aut), Affiliation (aff), Intraception (int), Succorance (suc), Dominance (dom), Abasement (aba), Nurturance (nur), Change (chg), Endurance (end), Heterosexuality (het), and Aggression (agg). The schedule consists of 210 pairs of items in a forced-choice format, with items from each of the 15 scales being paired off twice against items from the other 14. In addition, 15 items are repeated in order to obtain an estimate of the respondents consistency. Test-retest coefficients are reported between .74 and .88 and internal consistencies, estimated from split-half correlations, range from .60 to .87 (Buros, 1959).

The widespread use of this test in research studies was predicted by Bjerstedt in his review of the test. "The Edwards Personal Preference Schedule is an instrument which has several unique and useful characteristics, and which promises to be very helpful in personality-oriented research" (Buros, 1959).

There have been many validating studies using the Edwards Personal Preference Schedule, subsequent to the original validation based on clinical observation and on relationships with ratings and other questionnaires (Buros, 1959). One such study was performed by Tobin (1965) as he established profiles from this test with a norming group of teachers and education students. More recently, Walsh (1969), Callahan and Wauck (1969), and Tanner, et al (1969) produced results from their studies, which indicated the EPPS was sensitive to group differences or differences in varied populations.

The Edwards Personal Preference Schedule was chosen for use in the present study because:

1. it has satisfactory reliability and validity, and it offers measures which are relatively independent of one another (Buros, 1959).
2. it minimizes or eliminates such deterrents to measurement as response set, and the influence of social desirability upon responses to statements. These difficulties, inherent in the true-false or yes-no dichotomy employed by a

majority of personality inventories, are avoided by the use of the forced-choice format and systematic comparison of strengths of needs within the individual (Buros, 1959).

3. unlike most personality inventories, the EPPS is based not only on a sophisticated theoretical formulation, but also, and more particularly, one which concerns motives in psychologically normal human beings. The present study relates as well to the premise or theory underlying this measure - that needs affect behavior - as it directs itself to an examination of personality needs which distinguish among groups of normal adolescent students categorized according to the extent of drug-using behavior characteristic of their respective memberships.
4. school counseling services are facing increasing demands for assistance to student drug users and are experiencing growing difficulty with regard to provision of appropriate assessments and adequate facilities. The EPPS may well prove of value: as a diagnostic instrument for measuring a variety of significant, non-pathological traits, and as a therapeutic aide, by providing scores which have no maladjustive or clinical connotations and may therefore, where desirable, be reported back to the student.
5. it is an instrument highly sensitive to group differences on select personality variables. A study conducted by Callahan and Wauck (1969), for example, produced results

indicating significant differences on select EPPS variables characterizing groups of non-dropouts, voluntary dropouts, and involuntary dropouts among a Junior College Seminary population. Reference to this and other studies have been made previously in this chapter, all indicative of the sensitivity of the EPPS in determining group differences - the purpose for which it was chosen to complete the present study.

A SURVEY OF OPINIONS OF YOUTH

In 1968, A Survey Of High School Students Attitudes was developed by J.R. Unwin and administered to select high school student populations across Canada by the Canadian Federation Of Home And School, Parent-Teachers' Association. The 54-item questionnaire was designed to determine the attitudes of Canadian high school students towards drug usage and other items of social concern. Following the basic purpose, and including much of the content of this questionnaire, the writer developed a similar but more comprehensive questionnaire (Appendix), designed to provide a measure of the attitudinal dimension of personality with particular regard to various concomitants of drug usage. The questionnaire was designed to acquire additional data inclusive of this major purpose, within each of the four sections as follows:

Section "A", consisting of 15 items, provided information relative to specific individual, sociological indices including:

academic performance, employment status, home and family circumstance, vocational aspiration, and recreational-leisure activities. For purposes of the present study, results obtained were not included in statistical analyses of the data.

Section "B", consisting of 10 items, provided information relative to specific individual behavior regarding drug usage, including: types of drugs used, present and future intentions, possible motivation for usage, and amount of information at hand. Responses to selected items were used to confirm membership of respondents in pre selected groups.

Section "C", consisting of 10 items, provided introductory indices of the direction and intensity of opinions toward various concomitants of drug-using behavior, including: legal availability, treatment of offenders, reasons for usage and patterns and extent of usage. Response statements were scaled, following review and agreement by four independent judges. Responses to items within this section were not included in statistical analyses of data since they were intended to provide an introductory approach to the attitude scale items to follow.

Section "D", consisting of 50 items, provided the second psychometric measure employed in the current investigation. Item content and method of presentation, and appropriateness of response weights were reviewed and agreed upon by a corps of four judges prior to completion of the scale. Attitudes toward drugs and drug usage were sampled according to a summed score

technique, each of the statement items being followed by a five-point scale of responses ranging from strong agreement to strong disagreement. Weights of certain select items were reversed during the scoring procedure to correct for possible response set established by respondents. Weighted response choices were summed to provide the total raw score, a measure of the direction and intensity of attitude present.

Survey research admittedly may be affected by the honesty of the respondents, and in this respect, every possible effort was made to eliminate motivation for misrepresentation. The respondents were assured, both in writing and orally by the writer that the survey was anonymous and was to be used for statistical analyses only. Given this weakness, however, among likely others inherent in survey research: "... properly constructed surveys are the most accurate method of making estimates of drug use" (LeDain Commission, 1970). Reference has been made previously in this regard to the significant results obtained by survey research methods in both: the Report On Attitudes And Behavior Of Toronto Students In Relation To Drugs (1969), and the Survey Of Drug Use In Selected British Columbia Schools (1970).

A survey is particularly appropriate to describe social facts which include both overt behavior and attitudes. While much human behavior is subject to various forms of investigation, only self-reporting by a representative sample of a population will yield

information to describe sets of attitudes and experiences that combine to determine differences in behavior within that population. (LeDain Commission, 1970)

PROCEDURE

Four groups of 15 students each, were randomly selected from each sample population for purposes of test administration. This procedure intentionally precluded possible adverse effects upon measurement caused by feelings of suspicion likely to arise if groups were tested as categorized for purposes of the study (that is, placing all regular drug-using individuals together, all occasional users together, and so on, for testing).

All subjects were interviewed by the writer prior to testing and informed of the nature of the study. They were also assured anonymity with respect to their involvement in the study. For purposes of sustaining both the identity of matched triads pre selected, and membership of respondents in their appropriate groups, as well as respecting anonymity of responses, identifying numbers were placed innocuously on each set of tests administered to every individual. Both the Edwards Personal Preference Schedule and A Survey Of Opinions Of Youth were administered by the writer in standardized testing situations to each of the four groups, scores thus being obtained on both measures for the total population of

60 students. Completed instruments were then sorted according to identification numbers indicative of appropriate placement into each of the three groups categorized, for purposes of comparison within the present study.

HYPOTHESES

Data were examined according to the original purpose established for the study; that is, to determine the existence of differences among groups of habitual drug users, occasional drug users and non drug users on select personality variables. During this procedure, it became obvious that data would permit additionally, comparison of sex differences within the groups on each of the variables concerned, concomitant with a resulting interaction. This additional comparison, was determined by the writer to provide an interesting, if not significant complement, however previously unanticipated, to the original intention of examining group differences, and resulted in a minor change only, in procedures for statistical analyses (use of a 2x3 analysis of variance rather than a one-way analysis) otherwise required.

The major purpose of the study, to examine group differences, retains emphasis in structuring of the following Hypotheses. Each has been elaborated to accommodate examination of the relationships between sex and extent of drug usage within the groups, and the inter-

action between sex and each personality variable, as these comparisons are intended to complement or enhance the original purpose.

Data were treated by using the trial or null hypothesis to determine the existence of differences on possible sources of variation. The null hypothesis was so selected, in the absence of results from drug-oriented research studies to date, which provide direction otherwise. At this point, predictive studies appear virtually impossible, however, observation of significant differences among respective drug-using populations would prove useful and valuable. The data collected for each of the three groups: habitual or regular drug users, occasional drug users, and non drug users, on selected need-oriented and attitudinal dimensions of personality, were therefore treated by using the null hypothesis in the following ways:

Hypothesis I. There will be no significant differences in mean scores reflecting the personality variable - Achievement - as measured by the Edwards Personal Preference Schedule:

- a) among groups of habitual drug users, occasional drug users and non drug users.
- b) between males and females in each of the three groups.
- nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis II. There will be no significant differences in mean scores reflecting the personality variable - Deference - as

measured by the Edwards Personal Preference Schedule:

a) among groups of habitual drug users, occasional drug users and non drug users.

b) between males and females in each of the three groups.

nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis III. There will be no significant differences in mean scores reflecting the personality variable - Order - as measured by the Edwards Personal Preference Schedule:

a) among groups of habitual drug users, occasional drug users and non drug users.

b) between males and females in each of the three groups.

nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis IV. There will be no significant differences in mean scores reflecting the personality variable - Exhibition - as measured by the Edwards Personal Preference Schedule:

a) among groups of habitual drug users, occasional drug users and non drug users.

b) between males and females in each of the three groups.

nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis V. There will be no significant differences in mean scores reflecting the personality variable - Autonomy - as measured by the Edwards Personal Preference Schedule:

- a) among groups of habitual drug users, occasional drug users and non drug users.
 - b) between males and females in each of the three groups.
- nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis VI. There will be no significant differences in mean scores reflecting the personality variable - Affiliation - as measured by the Edwards Personal Preference Schedule:

- a) among groups of habitual drug users, occasional drug users and non drug users.
 - b) between males and females in each of the three groups.
- nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis VII. There will be no significant differences in mean scores reflecting the personality variable - Intraception - as measured by the Edwards Personal Preference Schedule:

- a) among groups of habitual drug users, occasional drug users and non drug users.
 - b) between males and females in each of the three groups.
- nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis VIII. There will be no significant differences in mean scores reflecting the personality variable - Succorance - as measured by the Edwards Personal Preference Schedule:

- a) among groups of habitual drug users, occasional drug users and non drug users.

b) between males and females in each of the three groups.
nor is there c) a significant interaction between extent of drug use
and sex.

Hypothesis IX. There will be no significant differences in
mean scores reflecting the personality variable - Dominance - as
measured by the Edwards Personal Preference Schedule:

- a) among groups of habitual drug users, occasional
drug users and non drug users.
- b) between males and females in each of the three groups.
- nor is there c) a significant interaction between extent of drug
use and sex.

Hypothesis X. There will be no significant differences in
mean scores reflecting the personality variable - Abasement - as
measured by the Edwards Personal Preference Schedule:

- a) among groups of habitual drug users, occasional
drug users and non drug users.
- b) between males and females in each of the three groups.
- nor is there c) a significant interaction between extent of drug
use and sex.

Hypothesis XI. There will be no significant differences in
mean scores reflecting the personality variable - Nurturance - as
measured by the Edwards Personal Preference Schedule:

- a) among groups of habitual drug users, occasional
drug users and non drug users.
- b) between males and females in each of the three groups.

nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis XII. There will be no significant differences in mean scores reflecting the personality variable - Change - as measured by the Edwards' Personal Preference Schedule:

a) among groups of habitual drug users, occasional drug users and non drug users.

b) between males and females in each of the three groups.

nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis XIII. There will be no significant differences in mean scores reflecting the personality variable - Endurance - as measured by the Edwards Personal Preference Schedule:

a) among groups of habitual drug users, occasional drug users and non drug users.

b) between males and females in each of the three groups.

nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis XIV. There will be no significant differences in mean scores reflecting the personality variable - Heterosexuality - as measured by the Edwards Personal Preference Schedule:

a) among groups of habitual drug users, occasional drug users and non drug users.

b) between males and females in each of the three groups.

nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis XV. There will be no significant differences in mean scores reflecting the personality variable - Aggression - as measured by the Edwards Personal Preference Schedule:

- a) among groups of habitual drug users, occasional drug users and non drug users.
- b) between males and females in each of the three groups.
- nor is there c) a significant interaction between extent of drug use and sex.

Hypothesis XVI. There will be no significant differences in mean scores reflecting - Attitude Toward Drug Use - as determined by A Survey Of The Opinions Of Youth:

- a) among groups of habitual drug users, occasional drug users and non drug users.
- b) between males and females in each of the three groups.
- nor is there c) a significant interaction between extent of drug use and sex.

DATA PREPARATION

Group differences regarding the relationship between personality and attitudinal variables, and extent of drug-using behavior; sex differences within each of the groups, and interaction, will be determined by analyses of variance performed on data respective of each of the foregoing hypotheses.

CHAPTER IV

FINDINGS AND CONCLUSIONS

INTRODUCTION

As indicated in Chapter III, overview of the resulting data revealed the unanticipated presence of an interesting, and perhaps significant relationship not included in those specific to the original purpose of the study (that is, to examine differences among groups of student drug users and non drug users on select personality variables). Also, since techniques used to select the three groups had resulted in identical numbers of males and females within each, matched according to age and educational level, it seemed apparent to the writer that data accrued would not only permit, but obviate the significance of, examining the relationship between sex and extent of drug usage within each group, as this may well complement or enhance the original intent of the study. The major purpose thus retains emphasis in the following procedures of data analyses, which have merely been expanded to accommodate additional examination of the possible relationship between sex differences and extent of drug usage, regarding the personality variables concerned.

TESTING HYPOTHESES

Statistical analyses of the data respective of each of the previously stated hypotheses included, in order, the following calculations.

1. Means were calculated for each of the groups of 10 male and 10 female habitual drug users, occasional drug users and non drug users, and for the total group of 20 subjects, on each of the variables measured.

2. A 2x3 analysis of variance was calculated for each of the variables measured. The critical F value with 2 and 54 degrees of freedom is 3.17 (Ferguson, 1959) at the 0.05 level of confidence.

3. The Scheffé's "a posteriori" contrasts were used, where appropriate (that is, in each case when a significant difference in means was noted), to determine the direction of significance.

Statement of an appropriate conclusion regarding each hypothesis follows pertinent statistical findings from the calculations as above indicated.

HYPOTHESES

Hypothesis I - Findings

Scores on the Achievement variable of the Edwards Personal

Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users, occasional drug users and non drug users, and for sex within these groupings. Table I depicts these values.

TABLE I

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS, AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE ACHIEVEMENT
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	11.80	14.50	12.60
FEMALES	9.90	12.40	11.40
TOTALS	10.85	13.45	12.00

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table II reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE II

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE
ACHIEVEMENT VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Achievement	67.9000	2	33.9500	2.0097
Sex	45.0666	1	45.0666	2.6678
Achievement x Sex	2.2300	2	1.1150	0.0660
Within	912.2034	54	16.8926	
Total	1027.4000	59		

**p < 0.01

*p < 0.05

Conclusion

Confirmation of Hypothesis I was obtained. No significant differences were found on scores reflecting the Achievement variable of the EPPS: among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis II - Findings

Scores on the Deference variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means

for these scores were calculated for the groups of habitual drug users, occasional drug users and non drug users, and for sex within these groupings. Table III depicts these values.

TABLE III
MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE DEFERENCE
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG USING GROUP \bar{X}
MALES	8.30	10.50	6.80
FEMALES	6.60	7.90	8.00
TOTALS	7.45	9.20	7.40

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table IV reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE IV

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE DEFERENCE
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Deference	42.0334	2	21.0167	2.1036
Sex	16.0167	1	16.0167	1.6031
Deference x Sex	39.4333	2	19.7166	1.9734
Within	539.5000	54	9.9907	
Total	636.9834	59		

**p < 0.01

*p < 0.05

Conclusion

Confirmation of Hypothesis II was obtained. No significant differences were found on scores reflecting the Deference variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis III - Findings

Scores on the Order variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these

scores were calculated for the groups of habitual drug users, occasional drug users and non drug users, and for sex within these groupings. Table V depicts these values.

TABLE V

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE ORDER
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	6.50	8.20	6.20
FEMALES	6.30	7.80	8.80
TOTALS	6.40	8.00	7.50

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table VI reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE VI

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE ORDER
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Order	26.8000	2	13.4000	1.3000
Sex	6.6666	1	6.6666	0.6509
Order x Sex	28.1334	2	14.0667	1.3736
Within	553.0000	54	10.2407	
Total	614.6000	59		

**p<0.01

*p<0.05

Conclusion

Confirmation of Hypothesis III was obtained. No significant differences were found on scores reflecting the Order variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis IV - Findings

Scores on the Exhibition variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for

these scores were calculated for the groups of habitual drug users, occasional drug users and non drug users, and for sex within these groupings. Table VII depicts these values.

TABLE VII

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE EXHIBITION
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG USING GROUP \bar{X}	OCCASIONAL DRUG USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	14.20	11.80	14.80
FEMALES	15.60	15.70	15.00
TOTALS	14.90	13.75	14.90

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table VIII reveals a nonsignificant F ratio for the independent variable, amount of drug use, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction. A significant F ratio is found for the independent variable, sex, indicative of the existence of differences between males and females within the groups, which exceed the 0.05 level of probability.

TABLE VIII

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE EXHIBITION
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio Obtained
Exhibition	17.6334	2	8.8167	0.7517
Sex	50.4167	1	50.4167	4.2989*
Exhibition x Sex	35.6333	2	17.8166	1.5191
Within	633.3000	54	11.7277	
Total	736.9834	59		

**p < 0.01

*p < 0.05

The Scheffé's "a posteriori" contrasts, were used to determine which pairs of means showed significant difference.* As shown in Table IX, significant differences were not found to exist between the means for males and females within the groups of habitual drug users and non drug users. A significant difference was found to exist between the means for males and females within the group of occasional drug users.

* The critical F values determined: 2.72 at the 0.05 level of confidence and 4.18 at the 0.01 level of confidence.

TABLE IX

SUMMARY OF SCHEFFÉ'S "A POSTERIORI" CONTRASTS ON
MEANS FOR MALES AND FEMALES ON EXHIBITION SCORES

Source of Variation	F Observed	Significance Level
Habitual Drug Users - Males vs. Females	1.40	n.s.
Occasional Drug Users - Males vs. Females	3.90	0.05
Non Drug Users - Males vs. Females	0.20	n.s.

Conclusion

A significant difference was found between mean scores of males and females on the Exhibition variable of the EPPS within the group of occasional drug users. Therefore, the null hypothesis for Hypothesis IV regarding this source of variation was rejected at the 0.05 level of confidence (Table IX). No significant differences were found on scores reflecting the Exhibition variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, nor was there a significant interaction between extent of drug use and sex. Confirmation of Hypothesis IV was therefore obtained regarding these sources of variation.

Hypothesis V - Findings

Scores on the Autonomy variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users, occasional

drug users and non drug users, and for sex within these groupings.

Table X depicts these values.

TABLE X

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE AUTONOMY
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	15.70	16.60	18.10
FEMALES	17.50	16.50	16.50
TOTALS	16.60	16.55	17.30

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XI reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE XI

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE AUTONOMY
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Autonomy	7.0334	2	3.5167	0.2963
Sex	0.0733	1	0.0733	0.0000
Autonomy x Sex	28.9767	2	14.4883	1.2207
Within	640.9000	54	11.8685	
Total	676.9834	59		

**p < 0.01

*p < 0.05

Conclusion

Confirmation of Hypothesis V was obtained. No significant differences were found on scores reflecting the Autonomy variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis VI - Findings

Scores on the Affiliation variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users,

occasional drug users and non drug users, and for sex within these groupings. Table XII depicts these values.

TABLE XII

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE AFFILIATION
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	16.40	15.50	17.10
FEMALES	16.00	17.40	18.70
TOTALS	16.20	16.45	17.90

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XIII reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE XIII

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE AFFILIATION
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Affiliation	33.7000	2	16.8500	1.3864
Sex	16.0166	1	16.0166	1.3178
Affiliation x Sex	15.6334	2	7.8167	0.6431
Within	656.3000	54	12.1537	
Total	721.6500	59		

**p < 0.01

*p < 0.05

Conclusion

Confirmation of Hypothesis VI was obtained. No significant differences were found on scores reflecting the Affiliation variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis VII - Findings

Scores on the Intraception variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users, occasional

drug users and non drug users, and for sex within these groupings.

Table XIV depicts these values.

TABLE XIV

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE INTRACEPTION
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	18.50	16.90	15.10
FEMALES	19.40	16.20	18.20
TOTALS	18.95	16.55	16.65

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XV reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE XV

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE INTRACEPTION
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Intraception	73.7334	2	36.8667	1.7283
Sex	18.1500	1	18.1500	0.8509
Intraception x Sex	36.4000	2	18.4000	0.8625
Within	1151.9000	54	21.3314	
Total	1280.1834	59		

**p<0.01

*p<0.05

Conclusion

Confirmation of Hypothesis VII was obtained. No significant differences were found on scores reflecting the intraception variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis VIII - Findings

Scores on the Succorance variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users,

occasional drug users and non drug users, and for sex within these groupings. Table XVI depicts these values.

TABLE XVI

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE SUCCORANCE
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	14.80	10.90	15.40
FEMALES	12.60	12.80	11.60
TOTALS	13.70	11.85	13.50

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XVII reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE XVII

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE SUCCORANCE
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Succorance	41.2334	2	20.6167	0.1224
Sex	28.0167	1	28.0167	0.1664
Succorance x Sex	86.4333	2	43.2166	0.2567
Within	9089.3000	54	168.3203	
Total	9244.9834	59		

**p < 0.01

*p < 0.05

Conclusion

Confirmation of Hypothesis VII was obtained. No significant differences were found on scores reflecting the Succorance variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis IX - Findings

Scores on the Dominance variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users,

occasional drug users and non drug users, and for sex within these groupings. Table XVIII depicts these values.

TABLE XVIII

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE DOMINANCE
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	13.50	13.30	12.90
FEMALES	12.30	12.30	12.30
TOTALS	12.90	12.80	12.60

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XIX reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE XIX

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE DOMINANCE
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Dominance	0.9334	2	0.4667	0.0279
Sex	13.0667	1	13.0667	0.7825
Dominance x Sex	0.9333	2	0.4666	0.0279
Within	901.8000	54	16.7000	
Total	915.7555	59		

**p < 0.01

*p < 0.05

Conclusion

Confirmation of Hypothesis IX was obtained. No significant differences were found on scores reflecting the Dominance variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis X - Findings

Scores on the Abasement variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users,

occasional drug users and non drug users, and for sex within these groupings. Table XX depicts these values.

TABLE XX

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE ABASEMENT
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	14.90	14.30	13.70
FEMALES	17.00	14.25	17.40
TOTALS	15.95	14.25	15.55

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XXI reveals a nonsignificant F ratio for the independent variable, amount of drug use, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction. A significant F ratio is found for the independent variable, sex, indicative of the existence of differences between males and females within the groups, which exceed the 0.05 level of probability.

TABLE XXI

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE
ABASEMENT VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Abasement	31.6000	2	15.8000	1.1180
Sex	54.1500	1	54.1500	3.8318*
Abasement x Sex	36.4000	2	18.2000	1.2870
Within	763.1000	54	14.1314	
Total	885.2500	59		

**p < 0.01

*p < 0.05

The Scheffé's "a posteriori" contrasts, were used to determine which pairs of means showed significant difference.* As shown in Table XXII, significant differences were not found to exist between the means for males and females within the group of occasional drug users. Significant differences were found to exist between the means for males and females within the groups of both habitual drug users and non drug users.

* The critical F values determined: 2.99 at the 0.05 level of confidence and 3.81 at the 0.01 level of confidence.

TABLE XXII

SUMMARY OF SCHEFFES "A POSTERIORI" CONTRASTS ON
MEANS FOR MALES AND FEMALES ON ABASEMENT SCORES

Source of Variation	F Observed	Significance Level
Habitual Drug Users - Males vs. Females	3.90	0.01
Occasional Drug Users - Males vs. Females	0.10	n.s
Non Drug Users - Males vs. Females	3.70	0.05

Conclusion

No significant differences were found on scores reflecting the Abasement variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, nor was there a significant interaction between extent of drug use and sex. Confirmation of Hypothesis X was therefore obtained regarding these sources of variation. A significant difference was found between mean scores of males and females on the Abasement variable of the EPPS within the group of habitual drug users. The null hypothesis for Hypothesis X regarding this source of variation was therefore rejected at the 0.01 level of confidence (Table XXII). A significant difference was found between mean scores of males and females on the Abasement variable of the EPPS within the group of non drug users as well. The null hypothesis for Hypothesis X regarding this source of variation was therefore further rejected at the 0.05 level of confidence. (Table XXII).

Hypothesis XI - Findings

Scores on the Nurturance variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users, occasional drug users and non drug users, and for sex within these groupings. Table XXIII depicts these values.

TABLE XXIII

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE NURTURANCE
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	16.40	16.80	16.90
FEMALES	17.40	17.50	18.30
TOTALS	16.90	17.15	17.60

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XXIV reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE XXIV

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE NURTURANCE
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Nurturance	5.0334	2	2.5167	0.1019
Sex	16.0167	1	16.0167	0.6487
Nurturance x Sex	1.2333	2	0.6166	0.0249
Within	1333.9000	54	24.7018	
Total	1354.4049	59		

**p < 0.01

*p < 0.05

Conclusion

Confirmation of Hypothesis XI was obtained. No significant differences were found on scores reflecting the Nurturance variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis XII - Findings

Scores on the Change variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users,

occasional drug users and non drug users, and for sex within these groupings. Table XXV depicts these values.

TABLE XXV

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN GROUPS ON THE CHANGE
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{Y}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	19.00	17.10	19.30
FEMALES	20.30	19.70	15.50
TOTALS	19.65	18.40	17.40

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XXVI reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p \geq 0.05$) and a nonsignificant F ($p \geq 0.05$) for interaction.

TABLE XXVI

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE CHANGE
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Change	50.8334	2	25.4167	1.4274
Sex	0.0166	1	0.0166	0.0000
Change x Sex	111.5368	2	55.7684	3.0601 ***
Within	977.7000	54	18.1055	
Total	1140.9336	59		

**p < 0.01

*p < 0.05

*** The approximation of this figure to the critical F value (3.17) resulted in repeat calculation of the analysis of variance to confirm nonsignificance ($p \geq 0.05$) for interaction.

Conclusion

Confirmation of Hypothesis XII was obtained. No significant differences were found on scores reflecting the Change variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis XII - Findings

Scores on the Endurance variable of the Edwards Personal Preference

Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users, occasional drug users and non drug users, and for sex within these groupings. Table XXVII depicts those values.

TABLE XXVII

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN THE GROUPS ON THE ENDURANCE
VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	7.20	12.50	8.80
FEMALES	7.60	8.70	11.30
TOTALS	7.40	10.60	10.05

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XXVIII reveals a nonsignificant F ratio for the independent variable, sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction. *** A significant F ratio is found for the independent variable, amount of drug use, indicative of the

existence of differences among the groups, which exceed the 0.05 level of probability.

*** The approximation of this figure to the critical F value (3.17) resulted in repeat calculation of the analysis of variance to confirm nonsignificance ($p \geq 0.05$) for interaction.

TABLE XXVIII

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE ENDURANCE
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Endurance	117.1000	2	58.5500	3.5512 *
Sex	1.3500	1	1.3500	0.0818
Endurance x Sex	102.9000	2	51.4500	3.1206 ***
Within	890.3000	54	16.4870	
Total	1111.6500	59		

** $p < 0.01$

* $p < 0.05$

The Scheffé's "A posteriori" contrasts, were used to determine which pairs of means showed significant difference. The critical F value established was 3.39 at the 0.05 level of significance, and revealed consequently, no significant differences among groups. In this instance, the Scheffé's thus proves an instrument less sensitive

to mean differences among groups than the analysis of variance, and results provided in Table XXIX have been presented for purposes of examining the direction rather than the significance of differences established among groups.

TABLE XXIX

SUMMARY OF SCHEFFES "A POSTERIORI" CONTRASTS ON
MEANS FOR GROUPS OF HABITUAL DRUG USERS, OCCASIONAL DRUG USERS
AND NON DRUG USERS ON ENDURANCE SCORES

Source of Variation	F Observed	Significance Level
Habitual Drug Users vs. Occasional Drug Users	3.20	n.s.
Habitual Drug Users vs. Non Drug Users	2.65	n.s.
Occasional Drug Users vs. Non Drug Users	0.55	n.s.

Conclusion

No significant differences were found between mean scores of males and females among groups of habitual drug users, occasional drug users and non drug users on the Endurance variable of the EPPS, nor was there a significant interaction between extent of drug use and sex. Confirmation of Hypothesis XIII was therefore obtained regarding these sources of variation. Significant differences were found on scores reflecting the Endurance variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users. The null hypothesis for

Hypothesis XIII regarding this source of variation was therefore rejected at the 0.05 level of confidence. (Table XXVIII).

Hypothesis XIV - Findings

Scores on the Heterosexuality variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users, occasional drug users and non drug users, and for sex within these groupings. Table XXX depicts these values.

TABLE XXX

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN THE GROUPS ON THE
HETEROSEXUALITY VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	15.70	18.30	20.80
FEMALES	17.30	17.90	16.10
TOTALS	16.50	18.10	18.45

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to

have been satisfactorily met. Inspection of the results of the analysis presented in TableXXXI reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE XXXI

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE HETEROSEXUALITY VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Heterosexual-ity	43.2334	2	21.6167	0.8805
Sex	20.4167	1	20.4167	0.8316
Heterosexual-ity x Sex	103.6333	2	51.8166	2.1106
Within	1325.7000	54	24.5500	
Total	1492.9834	59		

** $p < 0.01$

* $p < 0.05$

Conclusion

Confirmation of Hypothesis XIV was obtained. No significant differences were found on scores reflecting the Heterosexuality variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis XV - Findings

Scores on the Aggression variable of the Edwards Personal Preference Schedule (EPPS) were tabulated for each subject. Means for these scores were calculated for the groups of habitual drug users, occasional drug users and non drug users, and for sex within these groupings. Table XXXII depicts these values.

TABLE XXXII

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS,
AND FOR SEX WITHIN THE GROUPS ON THE
AGGRESSION VARIABLE OF THE EPPS

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	14.70	12.30	16.20
FEMALES	14.10	13.00	10.90
TOTALS	14.40	12.65	13.55

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumption underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XXXIII reveals a nonsignificant F ratio for both independent variables, amount of drug use and sex, ($p > 0.05$) and a nonsignificant F ($p > 0.05$) for interaction.

TABLE XXXIII

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE AGGRESSION
VARIABLE OF THE EPPS FOR ALL GROUPS

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio Obtained
Aggression	30.6334	2	15.3167	0.8637
Sex	45.0067	1	45.0667	2.5413
Aggression x Sex	99.6333	2	49.8166	2.8092
Within	957.6000	54	17.7333	
Total	1132.9334	59		

**p < 0.01

*p < 0.05

Conclusion

Confirmation of Hypothesis XV was obtained. No significant differences were found on scores reflecting the Aggression variable of the EPPS among groups of habitual drug users, occasional drug users and non drug users, or between males and females within these groups; nor was there a significant interaction between extent of drug use and sex.

Hypothesis XVI - Findings

Scores on the Attitude Toward Drug Use variable as determined by A Survey Of the Opinions Of Youth were tabulated for each subject. Means for these scores were calculated for the groups of habitual

drug users, occasional drug users and non drug users, and for sex within these groupings. Table XXXIV depicts these values.

TABLE XXXIV

MEANS FOR THE GROUPS OF HABITUAL DRUG USERS,
OCCASIONAL DRUG USERS AND NON DRUG USERS, AND
FOR SEX WITHIN THE GROUPS ON THE ATTITUDE
TOWARD DRUG USE VARIABLE OF THE SURVEY OF
THE OPINIONS OF YOUTH

GROUP	HABITUAL DRUG- USING GROUP \bar{X}	OCCASIONAL DRUG- USING GROUP \bar{X}	NON DRUG- USING GROUP \bar{X}
MALES	109.60	145.20	131.40
FEMALES	114.30	128.70	141.70
TOTALS	111.95	136.95	139.25

A 2x3 analysis of variance was performed to determine if significant differences existed among groups, and between males and females. The assumptions underlying the use of the F ratio were considered to have been satisfactorily met. Inspection of the results of the analysis presented in Table XXXV reveals a nonsignificant F ratio for the independent variable, sex, ($p > 0.05$). A significant F ratio is found for the independent variable, amount of drug use, indicative of the existence of differences among the groups, which exceed the 0.01 level of probability. A significant F for interaction is found as well, which exceeds the 0.05 level of probability.

TABLE XXXV

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE ATTITUDE
TOWARD DRUG USE VARIABLE OF THE SURVEY OF THE OPINIONS OF
YOUTH

Source Of Variation	Sum Of Squares	Degrees Of Freedom	Mean Squares	F Ratio Obtained
Attitude	9170.5334	2	4585.2667	14.7678 **
Sex	25.6500	1	25.6500	0.0826
Attitude x Sex	2677.5000	2	1338.7500	4.3117 *
Within	16766.5000	54	310.4907	
Total	28640.1834	59		

**p < 0.01

*p < 0.05

The Scheffé's "A posteriori" contrasts, were used to determine which pairs of means showed significant difference. *** As shown in Table XXVI, significant differences were found to exist: between means for habitual drug users and occasional drug users, and between means for habitual drug users and non drug users. No significant differences were found to exist between means for occasional drug users and non drug users.

*** The critical F values determined: 14.28 at the 0.05 level of confidence and 17.64 at the 0.01 level of confidence.

TABLE XXXVI

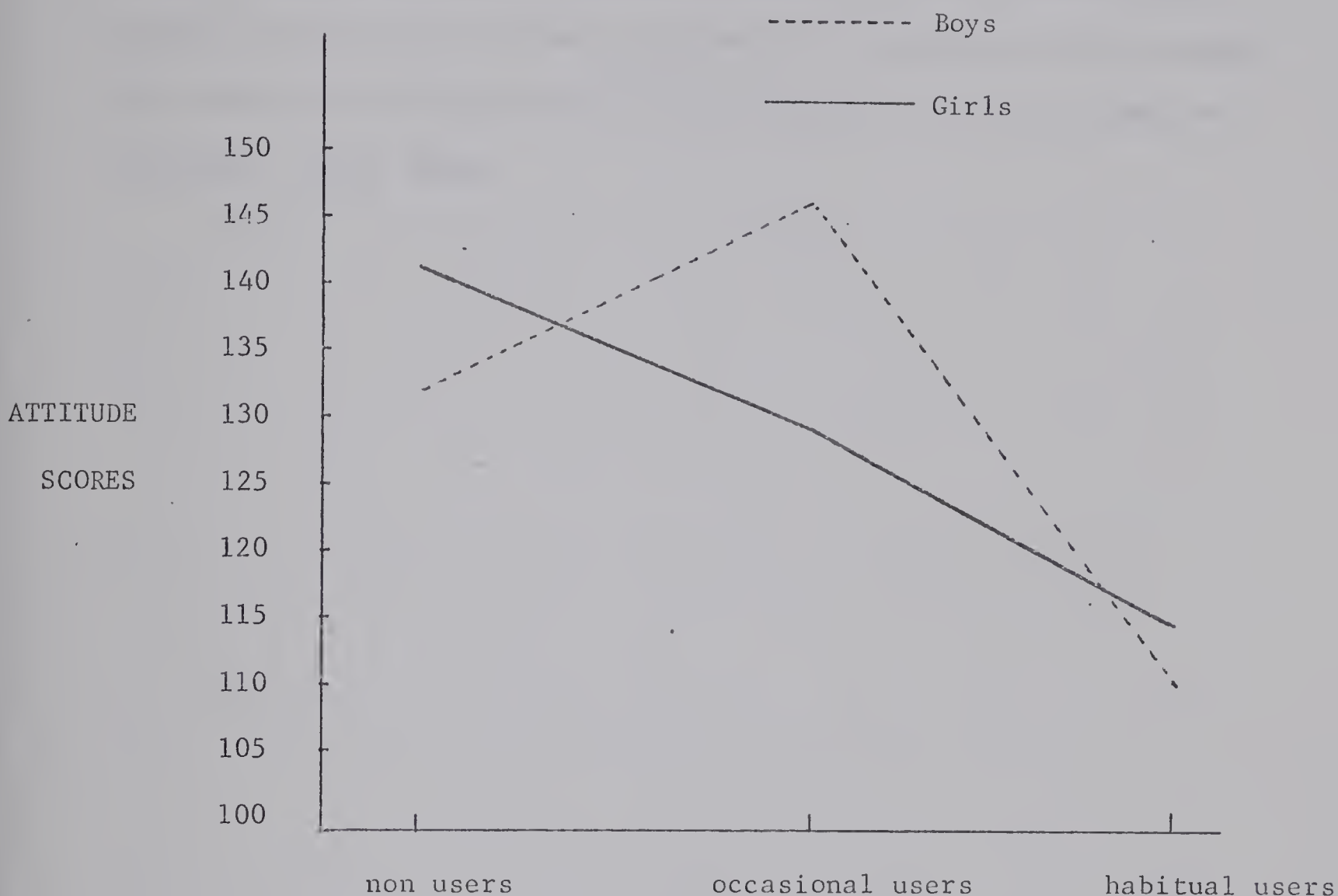
SUMMARY OF SCHEFFÉ'S "A POSTERIORI" CONTRASTS ON MEANS FOR GROUPS OF HABITUAL DRUG USERS, OCCASIONAL DRUG USERS AND NON DRUG USERS ON ATTITUDE TOWARD DRUG USE SCORES

Source of Variation	F Observed	Significance Level
Habitual Drug Users vs. Occasional Drug Users	25.00	0.01
Habitual Drug Users vs. Non Drug Users	27.30	0.01
Occasional Drug Users vs. Non Drug Users	2.30	n.s.

The means for the three groups are graphically shown in Figure I, to plot the significant F for interaction observed. As illustrated, an increase in extent of drug use is accompanied by and varies directly with a concomitant decrease in Attitude Toward Usage score (indicative of progressively favorable or positive attitude toward drugs and drug usage), for both males and females.

FIGURE I

GROUP MEANS FOR HABITUAL DRUG USERS, OCCASIONAL DRUG USERS
AND NON DRUG USERS ON THE SURVEY OF OPINIONS OF YOUTH



Conclusion

The singular nonsignificant difference found on scores reflecting the Attitude Toward Drug Use variable occurred on mean scores between males and females. Confirmation of Hypothesis XVI was therefore obtained with respect to sex differences in variation. Significant differences were found in mean scores between groups of habitual drug users and occasional drug users, and between habitual drug users and non drug users on the Attitude Toward Drug Use variable. The null

hypothesis for Hypothesis XVI regarding differences among groups was therefore rejected at the 0.01 level of confidence (Table XXXV). Further, a significant interaction was found to exist between extent of drug use and sex. The null hypothesis for Hypothesis XVI regarding this source of variation was therefore rejected at the 0.05 level of confidence (Table XXXV).

CHAPTER V

DISCUSSION, SUMMARY AND IMPLICATIONS

DISCUSSION

The rationale for this study was based on the ideas of such writers as Suchman (1967), King (1969), Whitehead (1969), and particularly, Unwin (1968, 1969), who believe that the current "drug problem" within our North American youth society is the product of a dramatic change in the attitudes, values, and beliefs of contemporary youth, rather than the cumulative, pervasive effect of individual and group pathological states. The general underlying hypothesis of the present study followed, in part, from this basic tenet. More particularly however, it followed from the lack of research evidence supportive of the contention (to be found as well, within the writings of the above-stated authorities in this field) that differences in personality are readily apparent within, and characteristic of the population of habitual or regular drug-using youth by comparison with similar populations of occasional drug users and non drug users. The results of this investigation tend to confirm the above rationale, and are supportive of the general underlying hypothesis.

The major conclusion of this study was that groups of regular drug-using students, occasional drug-using students and non drug-using

students were found not to differ significantly on measures of 15 personality variables. One exception to these findings was observed, which indeed may prove an artifact, regarding the variable Endurance.

This variable served, not only to distinguish the group of habitual drug users from others within the sample population, but also to emphasize the comparative similarity between groups of occasional drug users and non drug users; a likeness retained throughout the study. Edwards (1959) contends that Endurance relates, among others, to the following characteristics.

"..... to complete any job undertaken, to work hard at a task, to keep at a puzzle or problem until it is solved, to put in long hours of work without distraction....."

It is not surprising that the group of habitual drug users differentiated themselves according to scores on this variable, since authoritative opinion substantiates the trend apparent among this group toward "dropping out" ... of school, employment, and indeed, society as a whole. Unwin, Whitehead, and other authorities in this field agree, from their observations, therapeutic efforts, and studies relative to drug use among adolescents, that habitual drug users characteristically exhibit: inability to concentrate, academic failure, lack of motivation and growing apathy toward present tasks and future plans. As a group, therefore, habitual drug-using students

display a significant lack of qualities pertaining to the characteristic, Endurance - qualities which, by comparison, are not apparent by their absence among groups of occasional drug users or non drug users. Based upon group comparison, apart from this finding, extent of drug usage was found not to be associated significantly with distinctive or characteristic personality constructs.

A purpose of the study, secondary to determining the existence of group differences, was that of examining differences between male and female members of each group, respective of the personality variables concerned. In this regard, significant sex differences were found to exist within the group of occasional drug users on the variable Exhibition, and within the groups of habitual drug users and non drug users on the variable Abasement. It would be conjecture to attempt to explain these results other than to suggest that sex differences on selected personality variables within groups so characterized may be anticipated, and should receive consideration in further research efforts of this nature.

The singular variable which may be considered to have established significant differences among groups of youth catergorized according to the extent of drug usage was that of Attitude Toward Drug Usage. The group of habitual drug users was found to differ both from the group of occasional drug users, and from the group of non drug users, exceeding chance expectation beyond the 0.01 level. Members of this

group distinguished themselves thereby, as having significantly more positive or favorable attitudes toward drug usage than those of either the group of occasional drug users or the group of non drug users. Therefore, one may conclude that high school students who engage in drug-using behavior on a regular or habitual basis will demonstrate significantly more favorable attitudes toward drug usage than will those who indulge in the use of drugs occasionally, or not at all. This observation may be considered self-evident, or in the least, not surprising; however, the comparative coexistence of a nonsignificant difference in Attitude Toward Drug Usage between the groups of occasional drug users and non drug users indeed leads one to speculate upon the existence, thus demonstrated, of characteristics exclusive to the population of habitual drug users. Unwin, and other contemporary authorities in the field, are in agreement with this conclusion, however submit that such distinguishing characteristics approximate the nature of pathological states of personality. The present study lacked both intention and design to attempt assessment of the comparative existence of pathology among groups of youth respective of the extent of drug using behavior characteristic of each. It was able to determine, however, within the range of normal traits of personality studied, one which served to distinguish the group of habitual drug users from groups of occasional drug-using and non drug-using peers. The writer believes, that the attitudinal dimension thus identified as relevant, in differential respect, to the habitual use of drugs, warrants further research exploration. Further, as evidence resulting from

research specific to the delimitation of same, it deserves present consideration as a distinguishing characteristic, at least proportionate to that granted the various states of pathology presumed exclusive to the habitual drug-using populace of youth.

Finally, it must be emphasized, that no difference was established regarding this, or any other characteristic presently under consideration, between groups of occasional drug users and non drug users. Proportionate as well, therefore, to the consideration given distinguishing characteristics relative to drug usage, must be granted the lack of differences, or perhaps, similarities apparent, respective of usage.

SUMMARY

This research was an investigation designed to determine differences, with respect to selected personality and attitudinal variables, among three groups of high school students, categorized according to the extent of drug-using behavior characteristic of their respective memberships.

The research design involved the assessment on one attitudinal, and 15 personality variables, of three groups of 20 (10 male and 10 female) grade twelve students attending a large Edmonton Composite High School. The Edwards Personal Preference Schedule and A Survey Of

The Opinions Of Youth were administered to the sample population of 60 students. It was hypothesized that there would be no significant differences among groups of habitual drug users, occasional drug users and non drug users, or between males and females within each group; nor would there be a significant interaction between extent of drug usage and sex, respective of each variable assessed.

A 2x3 analysis of variance was used to test the hypotheses. The Scheffes "A posteriori" contrasts were used to evaluate, where applicable, the direction of differences found to be significant.

IMPLICATIONS FOR PRACTICE

Although the results of this research should be regarded as suggestive rather than definitive, they imply a global or public need for diminished focus upon the existence of various states of deviance, or otherwise abnormal constructs of personality, presumed to characterize the sector of habitual drug users within our youth population. Further need for public awareness is apparent with regard to the lack of differences between the occasional or casual drug user and his non drug-using contemporary; differences which to date, have been granted disproportionate and perhaps unfair consideration.

Social agencies, including education systems, presently embarking upon the necessary programs for provision of therapeutic, educative and

preventative services to youth, and to a concerned public, regarding the issue of drug usage, must attempt initially, to delineate those elements influential or important to the decision to participate in this activity. It appears that among the many such elements which may be considered, those pertaining to the attitudinal dimension of personality or character may well relate profoundly to such decision. Social agencies, education systems, community organizations and the family institution must coordinate and extend their efforts in this regard, toward sampling or identifying the attitudes and opinions of individual and collective youth as they pertain to drug usage and related social concerns. Further, they must direct the subsequent provision of appropriate preventative and educational schemes, toward reduction or replacement of the presently popular approach to fact-giving and the imposition of biased or strongly opinionated documentaries which regularly assume scare-tactic proportions. A positive, preferred, and more productive approach will employ, among others, such methods as: exploration (of facts, both positive and negative), inquiry (into individual and group feelings and motivations) and discussion (or sharing of ideas and emotions, with the intention of realizing or approximating consensus); the ultimate aim of which will presume creation and/or fostering of sound attitudes toward the issue of drug usage, particularly as such attitudes influence individual and group decisions with respect to involvement.

As indicated, the above, rather generalized proposal, is applicable

to educational approaches regarding this issue. Implications from the present research may, however, be related more specifically to the services provided by our education system as it responds to the demands for provision of specialized, therapeutic services, and preventative, educational programs for youth. Since the inception of the drug phenomenon in our schools, counselors, psychologists, social workers, and other special services personnel within our school system, have proffered a variety of diffuse and uncoordinated efforts, directed in the main toward the provision of therapeutic assistance to student drug users. The traditional "diagnostic-treatment" approach applied to the host of personal, academic, social and familial factors attendant upon the individual's presenting problem-drug usage - has necessarily limited the provision of service to a comparative few of the total number of individuals involved in drug usage who request and/or require assistance. Moreover, the therapeutic approach thus provided by these services, has yet to be evaluated with regard to its comparative degree of success for each individual drug user. Educational personnel involved in the provision of therapeutic services may well be advised to review and revamp their respective practices, in light of results such as those inclusive of the present study. By focusing upon the processes required for attitude formation and change, for example, rather than personality analysis and restructuring, with regard to the drug-using individual, specialists may enable themselves to provide not only more expedient and effective service to individual students, but also to extend such service to a greater number

of individuals, and to expand their services to accomodate group involvement in the therapeutic process.

A final implication for education to be drawn from the results of the present study extends itself to the principles underlying the development of an effective drug education program for use within the schools, and indeed to function further within the community. Those responsible for its development would be well advised to consider basic to such a program, a realistic view of human motivation, within which scope, is granted the influential effect of attitudes. Within the present study, a measurement of attitude served effectively to distinguish a group of habitual drug users from comparable groups of occasional drug users and non drug users. Indeed, such finding may substantiate, not only the need to accommodate various aspects of attitude formation, change and evaluation within a comprehensive program of drug education, but to provide a drug education program for the group of habitual drug users which is entirely separate and distinct from that provided other groups of youth. Unquestionably, further research is required before credence may be granted such a proposal. In view of the many and varied aspects contingent upon this issue, which are deserving of consideration; however, particularly that of the need for increased sophistication among those responsible for its developemnt and utilization, further research regarding the nature of drug-using personalities and groups may well be in order before proper development of a drug education program may realistically be considered.

IMPLICATIONS FOR RESEARCH

Further research, building upon the findings of this study would be productive in many areas. Initially, a larger scale study should be undertaken using identical categorizations of population, and indices of measurement, to determine if, in fact:

1. personality variables as measured by the EPPS do not distinguish significantly among groups categorized according to extent of drug using behavior.
2. attitudes toward drug usage as determined by A Survey Of The Opinions Of Youth distinguish significantly among groups categorized according to extent of drug using behavior.
3. sex differences are found to exist within groups, which have been categorized according to extent of drug using behavior, on selected personality variables.
4. significant interactions are found to exist between sex and extent of drug using behavior respective of selected personality variables.

The need for research into the many and varied aspects of the phenomenon of drug usage among youth has been suggested in previous chapters, has been documented repeatedly by expert and lay authors, and will not presently be reiterated in detail. With reference to future studies required, of the type herein documented (the need for

which is presumably obvious), the writer prefers to list a number of relevant concerns whose research will prove, if not sufficient, certainly necessary to a comprehensive understanding of the drug-using personality.

1. A larger, more comprehensive, and well-validated scale should be developed for immediate use in the required additional comparative assessments of Attitude Toward Drug Usage among groups of individuals categorized according to extent of drug using behavior.
2. Measures of a number and variety of personality characteristics, encompassing the range of traits in its entirety, from normal to pathological, should be included in future comparative assessments of groups of individuals categorized according to extent of drug using behavior.
3. The attitudinal dimension of personality, as it serves to distinguish among groups of individuals according to the respective extent of drug using behavior characterizing each, should be expanded for further, and immediate exploration. That is, extent of drug usage should be examined as it relates to a number of attitudinal variables, such as attitudes toward: self, the peer group, academic achievement, the family, and various social issues or aspects of society.
4. A future study should be directed toward examination of

attitude toward drug use and extent of drug using behavior as either or both relate to such variables as age, position in the family, intelligence, parental attitudes, peer relationships, socioeconomic status, family relationships, etcetera.

5. Longitudinal studies must be undertaken to examine the possible relationship between formation and/or change in attitude and respective change in extent of drug using behavior. A comprehensive range of such research efforts should be considered, to accommodate longitudinal studies of children, pre-adolescents, adolescents, and adults, where possible, to establish provision for comparative analyses, as well as valid observations of the rapidly changing cultural trends accompanying, and characterizing social concerns such as the one in question (given its predicted longevity). The ultimate aim, and perhaps most significant purpose of such studies is that of establishing the possible existence of a cause-effect relationship, and hence future predictive indices regarding attitudes as they relate to extent of drug usage.
6. From results of the present study, the establishment of a treatment program or therapeutic procedure specific to the phenomenon of drug usage may well be considered, and will be directed toward requirements for the purpose of attitude change. Thereafter, successful repetition

of the present study may be followed by application of treatment to the group of habitual drug users. Subsequent to treatment, the results provided by attitude retest, concurrent with an evaluation of the extent of drug usage present among the membership, will determine the effectiveness of, and hence possible future directions for therapy. In addition, extrapolations from existing positive results may well be extended toward the provision of realistic preventative and educational programs regarding the issue of drug usage.

In conclusion, results of the present study suggest that exploration of the attitudinal dimension of personality may prove a viable approach to the study of characteristics of youth as they relate to extent of involvement with drug usage. The major implication, similarly drawn from results of the study, indicates the necessity for conducting follow-up research to determine more specifically, the nature and comparative influence of the attitudinal dimension such that its purpose, relative to youthful involvement with drug usage may be defined, and further exploration of its functional significance enhanced.

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A P P E N D I X

A Survey Of Opinions Of Youth

A SURVEY OF OPINIONS OF YOUTH

INTRODUCTION

You have heard and seen in the news media much about drug usage by young people. The main purpose of this questionnaire is, with your cooperation, to determine your opinions about this issue.

You are asked to honestly and seriously answer all the questions on this questionnaire. You need not put your name anywhere on the paper, and the anonymity of your answers is guaranteed.

DEFINITION

The term "drugs" used in this questionnaire refers to the hallucinogenic or "psychedelic" substances which are being used illegally.

Examples: Glue, Nail Polish Remover, Marijuana (Pot), Hashish (Hash), Mescaline (Mesc.), LSD (Acid), Amphetamines (Speed), etc.

Unless specifically indicated, prescribed drugs such as the barbiturates (goofballs) and analgesics ("pain-killers") and "hard" narcotics such as Opium, Heroin and Cocaine, are not meant to be included for your consideration in answering.

INSTRUCTIONS

All answers are indicated by circling the number or letter of your choice from the alternatives given.

All answers are marked on the test booklet. The booklet is divided into 4 parts (A,B,C, and D), each of which is preceded by brief instructions for answering.

PLEASE USE PENCIL, marking each answer heavily, and if you make an error, erase the mark completely.

Try to answer all questions.

THANK YOU.

PART "A"

Choose the appropriate answer to each question from the alternatives listed to the right. CIRCLE THE LETTER which precedes your answer.

1. Sex
 - a male
 - b female
2. Age
 - a 13-14 yrs.
 - b 15-16 yrs.
 - c 17-18 yrs.
 - d 19-20 yrs.
 - e over 20 yrs.
3. Grade
 - a 10
 - b 11
 - c 12
4. I am a half-day student
 - a yes
 - b no
5. My average on the last exams was
 - a over 85%
 - b 70% - 79%
 - c 60% - 69%
 - d 50% - 59%
 - e under 50%
6. I am employed
 - a seasonally (i.e. during holidays)
 - b part time on a regular basis
 - c part time but occasionally
 - d full time
 - e not at all
7. Father's occupation
 - a professional
 - b business
 - c office worker
 - d manual worker
 - e other, or not employed

PART "A" cont'd.

8. Mother's occupation
- a professional
 - b business or office worker
 - c manual worker
 - d other
 - e homemaker
9. I live with
- a both parents
 - b my father
 - c my mother
 - d foster parents
 - e other (specify _____)
10. After completing school, I am planning
- a university education
 - b technical, commercial, or trade school training
 - c employment
 - d travel
 - e undecided, or have plans other than those mentioned
11. I participate in school clubs or activities
- a more than 15 hrs. a week
 - b 10 - 15 hrs. a week
 - c 5 - 10 hrs. a week
 - d 1 - 5 hrs. a week
 - e not at all
12. I participate in clubs or organized activities outside of school
- a more than 10 hrs. a week
 - b 7 - 9 hrs. a week
 - c 4 - 6 hrs. a week
 - d 1 - 3 hrs. a week
 - e not at all
13. The average amount of time I spend on homework and/or study is:
- a more than 15 hrs. a week
 - b 10 - 15 hrs. a week
 - c 5 - 10 hrs. a week
 - d 1 - 5 hrs. a week
 - e none at all

14. Most of my leisure time is spent
- a with my family
 - b dating
 - c with friends
 - d by myself
 - e other
15. The activity I enjoy most is
- a reading
 - b watching TV or going to movies
 - c going to dances or parties
 - d being alone
 - e other (specify_____)

PART "B"

Choose ONE of the alternative responses listed to the right of each statement, and CIRCLE THE LETTER which precedes your choice.

- | | | | |
|-----|---|---|--|
| 16. | I have taken a solvent (glue) | a | yes |
| | | b | no |
| 17. | I have taken marijuana | a | yes |
| | | b | no |
| 18. | I have taken LSD | a | yes |
| | | b | no |
| 19. | I have taken amphetamines (speed)
or barbiturates (goofballs) | a | yes |
| | | b | no |
| 20. | My parents know I take (have
taken) drugs | a | yes |
| | | b | no |
| | | c | does not apply |
| 21. | I intend to continue taking drugs | a | yes |
| | | b | no |
| | | c | does not apply |
| 22. | I intend to try one or more drugs | a | yes |
| | | b | no |
| | | c | undecided |
| 23. | The main reason I would take (or do
take, or have taken) one or more
drugs is | a | to "be one of the gang" |
| | | b | to feel better or different
(i.e. to "change") |
| | | c | to satisfy my curiosity, or
experiment |
| | | d | for reasons other than the
above (specify_____) |
| | | e | there is none - I would
not take drugs |

PART "B" cont'd.

24. The amount of information I have about drugs is:
- a none
 - b very little
 - c some
 - d a lot
 - e all there is to know at present
25. The information I have, has come mainly from:
- a the mass media (newspaper and/or magazine articles, television, radio etc.)
 - b reading books or published materials on the topic
 - c talking with others in my age group
 - d discussions with counselors, teachers, or professionals outside of school (e.g. doctors, clergymen, legal officials)
 - e other sources (specify_____)
 - f I have no information

PART "C"

Complete each of the following items by choosing ONE of the five alternatives provided. CIRCLE the letter which precedes your choice.

26. Drugs should be legally available
- a to no one
 - b only to scientists, for research
 - c only if recommended or prescribed by a doctor
 - d to adults only
 - e to youth and adults
27. Our government should treat drug offenders by:
- a increasing the severity of penalties
 - b varying the penalty according to the kind of drug involved
 - c Penalizing only drug "pushers", not users
 - d decreasing the severity of penalties
 - e legalizing drug usage
28. Teens who refuse to use drugs do so because
- a it is against the law
 - b they can't afford drugs
 - c drugs are harmful
 - d they have had bad previous experiences with drugs
 - e for other reasons
29. Of the following, the most significant reason or motive for drug usage is that related to:
- a the need to belong (i.e. to be accepted by one's associates).
 - b the wish to escape (from frustration, family, social pressure for e.g.)
 - c a desire to change (ones self, society, etc.)
 - d an attempt to gain insight (to "find answers")
 - e the need to establish self-identity (to know ones self, the reasons for existence etc.)

PART "C" cont'd.

30. The location chosen by most drug users for purposes of usage is:
- a at someones' home
 - b in a car
 - c at a party or social gathering
 - d in a room rented for the purpose
 - e elsewhere
31. Alcohol is used by teens
- a rarely
 - b occasionally
 - c only on special occasions
 - d on weekends
 - e more frequently than any of these
32. Most teenagers who use drugs, do so
- a to be one of the gang
 - b to feel good
 - c out of curiosity or as an experiment
 - d to get even with their parents or with society
 - e for other reasons
33. Anyone who has taken a drug more than once continues to do so
- a not at all
 - b occasionally
 - c on special occasions
 - d on weekends
 - e more frequently than any of these
34. Teenage youth who have chosen to do so would most likely be found drinking alcohol
- a at their own homes
 - b in cars
 - c in the homes of friends
 - d at parties or social gatherings
 - e elsewhere

PART "C"

cont'd.

35. Information about drugs would best be provided by:
- a parents
 - b professionals (in education, medicine, religion, law etc.)
 - c police officers
 - d those who have used drugs
 - e others (specify_____)

PART "D"

Each of the statements below is followed by a series of numbers from 1 - 5. These numbers indicate the degree or amount with which you agree or disagree with the item concerned.

Read each item, decide how strongly you agree or disagree with the statement, and CIRCLE the number to indicate your opinion - as follows:

1. I agree strongly
2. I agree
3. Undecided
4. I disagree
5. I disagree strongly

		I agree strongly	I agree	Undecided	I disagree	I disagree strongly
36.	Drug usage is a serious problem among teens in Edmonton	1	2	3	4	5
37.	LSD expands the mind	1	2	3	4	5
38.	Drug usage is merely a product of the ills of society	1	2	3	4	5
39.	Adults should have the freedom to use drugs	1	2	3	4	5
40.	Any party would be more enjoyable if the guests "turned on" (i.e., used drugs)	1	2	3	4	5
41.	Marijuana is a harmful drug	1	2	3	4	5
42.	Most young people who use drugs have valid reasons for doing so.	1	2	3	4	5

PART "D" cont'd.

		I agree strongly	I agree	Undecided	I disagree	I disagree strongly
43.	Drug "pushers" should be severely punished	1	2	3	4	5
44.	Young people should be provided with more information about drugs	1	2	3	4	5
45.	Public opinion unfairly condemns drug users	1	2	3	4	5
46.	Parents should permit their youngsters to experiment with drugs	1	2	3	4	5
47.	Legal penalties for drug offenses are effective in decreasing usage generally (i.e. they act as deterrents)	1	2	3	4	5
48	Most drug users could be classified as "hippies"	1	2	3	4	5
49.	Teens should have the freedom to use drugs	1	2	3	4	5
50.	Most drug users associate only with other drug users	1	2	3	4	5
51	Drugs are less harmful than alcohol	1	2	3	4	5

PART "D"

cont'd.

		I agree strongly	I agree	Undecided	I disagree	I disagree strongly
52.	The majority of drug users are "disturbed" or emotionally unstable people	1	2	3	4	5
53.	The more "potent" drugs such as LSD, SPEED, and Mescaline have definite harmful effects	1	2	3	4	5
54.	Public attitude, and current laws force drug users to create a sub-culture (or small society) of their own	1	2	3	4	5
55.	The main interests of a drug user center on, or around drugs	1	2	3	4	5
56.	Drugs should not be used by anyone before research has definitely proven their effects, dangers, etc., and has advised the public of these facts	1	2	3	4	5
57.	Parents should encourage their youngsters to try drugs	1	2	3	4	5
58.	Modern "pop" music glamorizes and advertises drug use	1	2	3	4	5
59.	Driving is not impaired by being "high" (under the influences of drugs)	1	2	3	4	5

PART "D"

cont'd.

I agree strongly	I agree	Undecided	I disagree	I disagree strongly
1	2	3	4	5

- | | | | | | | |
|-----|---|---|---|---|---|---|
| 60. | As students, drug users are typical, or "average" (i.e. are not different from others with respect to their interests, attendance, marks, conduct etc.) | 1 | 2 | 3 | 4 | 5 |
| 61. | Drugs help one to achieve self understanding and insight | 1 | 2 | 3 | 4 | 5 |
| 62. | Society is particularly prejudiced against the <u>youth</u> who use drugs (i.e. by comparison to adult drug users) | 1 | 2 | 3 | 4 | 5 |
| 63. | The mass media (newspapers, TV etc.) are contributing to, or increasing the amount of drug usage | 1 | 2 | 3 | 4 | 5 |
| 64. | No one is qualified to pass judgments on drugs, or drug users, unless he has experimented himself with these substances | 1 | 2 | 3 | 4 | 5 |
| 65. | Drugs should be legalized | 1 | 2 | 3 | 4 | 5 |
| 66. | Proven harmful effects of drugs cause users to stop using drugs | 1 | 2 | 3 | 4 | 5 |
| 67. | Drugs should replace alcohol | 1 | 2 | 3 | 4 | 5 |
| 68. | Too much fuss is being made today about drug usage | 1 | 2 | 3 | 4 | 5 |

PART "D"

cont'd

		I agree strongly	I agree	Undecided	I disagree	I disagree strongly
69.	The psychedelic drugs (marijuana, LSD, etc.) are non-addicting	1	2	3	4	5
70.	The mass media. (e.g. newspapers, television, etc.) most often presents a negative, biased, and/or incorrect picture of drugs and their usage	1	2	3	4	5
71.	Social pressures, demands, and expectations are responsible for causing young people to use drugs	1	2	3	4	5
72.	Drug users often resort to crime to support their "habit"	1	2	3	4	5
73.	Parents and adult society in general should become less ignorant about drugs and drug usage	1	2	3	4	5
74.	Most of the advice currently available regarding drugs is based upon emotions or opinions rather than fact	1	2	3	4	5
75.	Social values have changed drastically as a direct result of the growth of the current "drug era"	1	2	3	4	5
76.	Most people who experiment with (or regularly use) drugs began by using alcohol	1	2	3	4	5

PART "D"

cont'd

		I agree strongly	I agree	Undecided	I disagree	I disagree strongly
77.	The law is unfair in its treatment of drug offenders	1	2	3	4	5
78.	Drug usage results in "personal deterioration" (for example: interest and ambition decline, goals disappear, life loses meaning)	1	2	3	4	5
79.	Students who have been charged with possession or trafficking in drugs should not be allowed to attend school	1	2	3	4	5
80.	Use of the "softer" drugs (Marijuana, LSD) leads directly to experimentation with "hard" narcotics (Opium, Heroin)	1	2	3	4	5
81.	Psychedelic drugs have definite and proven value in the treatment of medical and psychiatric disorders	1	2	3	4	5
82.	Everyone would benefit by trying drugs at least once	1	2	3	4	5
83.	Anyone who has used drugs regularly, finds it impossible to stop usage completely and permanently	1	2	3	4	5
84.	Efforts to assist, or encourage users to quite drugs fail, largely because users have little or no desire to stop	1	2	3	4	5

PART "D"

cont'd

	I agree strongly	I agree	Undecided	I disagree	I disagree strongly
85. The drug market is controlled by large, organized, criminal syndicates	1	2	3	4	5

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